### **MEMORANDUM**

TO:

Windsor Kinney (PWWPCD)

FROM:

Lisa Lautato (D&B)

DATE:

August 31, 2021

SUBJECT:

Port Washington WPCD

Village of Flower Hill

Sanitary Sewer Feasibility Study

Proposed Scope of Work

D&B No. 0279

The Incorporated Village of Flower Hill (Village) has recently contacted the Port Washington Water Pollution Control District (District) to obtain a "Scope of Work" from the District for a Sanitary Sewer Feasibility Study for the Out-of-District unsewered areas of the Village, refer to attached Port Washington Water Pollution Control District Wastewater Collection System Map.

To assist the Village in expediting the study and ultimately the construction of a sanitary sewer system within the unsewered areas currently experiencing failing septic systems in the Cardinal Road Area of the Village, we are proposing to develop a Sanitary Sewer Feasibility Study in 2 Phases:

- Phase 1 Sanitary Sewer Feasibility Study Cardinal Road Tributary Area
- Phase 2 Sanitary Sewer Feasibility Study for the Unsewered Areas of Flower Hill.

Per discussions with the Village, there are failing on-site sanitary septic systems occurring on the properties located on Cardinal Road and the adjacent streets of Reni Road and Chestnut Road. Phase 1 of the Feasibility Study will be for the Cardinal Road Tributary Area. Refer to attached Incorp. Village of Flower Hill Sanitary Sewer - Cardinal Road Tributary Area map. The District has already conducted a cursory review of the flows within this area and feels that to connect this area to the existing collection system will require the least amount of upgrades to the collection system, making it a productive first step in developing the sewers within the entire Village. The scope of this first phase of the Study is as follows:

- Define In-District and Out-of-District Boundaries relative to Village Boundaries.
- Identify existing sewered areas within the Village.
- Identify environmental and public impacts due to existing failing septic/on-site sanitary sewer systems.
- Topographic Study of the Area through existing GIS Maps.
- Review and obtain information regarding the adjacent existing Port Washington WPCD Sanitary Sewer Collection System

- Correspondence and meetings with Port Washington Water Pollution Control District regarding the acceptance of Village flow.
- Obtain and evaluate water usage information from the local water district
- Obtain current land use/zoning of properties
- Obtain Population Data
- Calculation of current and future sanitary flows
- Evaluation of alternative sewer design options to collect and treat the flow from the
  unsewered areas of the Village including traditional sanitary sewer (gravity sewer, pump
  stations and force mains), non-traditional sanitary sewer options (low pressure sewer
  systems) as well as On-Site System upgrade options and small package type treatment
  plants.
- Present Sanitary Sewer Options
- Present and provide conceptual layout of recommended option.
- Conceptual Construction Cost Estimate for the recommended option
- Evaluate/Develop required upgrades to existing infrastructure to accept flow from the Village.
- Conceptual Construction Cost Estimate of the required upgrades to existing infrastructure.
- Operation and Maintenance Costs
- Calculation of Equalization fees and property owner costs for Out-of-District properties including descriptions of Owners responsibilities and how charges would be implemented
- Implementation of recommended option
- Evaluate potential financial opportunities for Village and Property Owners
- NYSDEC, legal and regulatory requirements
- Present the options and the advantages/disadvantages of the Village joining the Sewer District or remaining an outside Contract.
- Submit the above in a comprehensive Phase 1 report. A draft (3 Copies) shall be submitted to the Village for review and comment. Meeting with the Village will be performed to review and discuss the draft report and comments. A final copy (3 Copies) of the report will then be submitted to the Village.

Following completion of Phase 1 of the Sanitary Sewer Feasibility Study and upon authorization by the Village, Phase 2 – Sanitary Sewer Feasibility Study for the remaining unsewered areas of the Village would commence. Phase 2 scope of work will include the following:

- Define In-District and Out-of-District Boundaries relative to Village Boundaries.
- Identify existing sewered areas within the Village.
- Identify environmental and public impacts due to existing failing septic/on-site sanitary sewer systems.
- Topographic Study of the Area through existing GIS Maps.
- Review and obtain information regarding the adjacent existing Sanitary Sewer Collection Systems (Nassau County, Great Neck WPCD and Port Washington WPCD)

- Correspondence and meetings with Adjacent Sanitary Sewer Districts regarding the acceptance of Village flow.
- Obtain and evaluate water usage information from the local water district
- Obtain current land use/zoning of properties
- Obtain Population Data
- Divide the Village into Sewershed Sub-Areas
- Calculation of current and future sanitary flows from the unsewered areas of the Village
- Evaluation of alternative sewer design options to collect and treat the flow from the unsewered areas of the Village including traditional sanitary sewer (gravity sewer, pump stations and force mains), non-traditional sanitary sewer options (low pressure sewer systems) as well as On-Site System upgrade options, small package type treatment plants and other new wastewater treatment technologies. \*
- Present Sanitary Sewer Options for Each Sewershed Sub-Area
- Present and provide conceptual layout of recommended option.
- Conceptual Construction Cost Estimate for the recommended option
- Determine if upgrades to existing infrastructure (Nassau County, Great Neck WPCD and Port Washington WPCD collection systems) will be necessary to accept flow from the Village.
- Conceptual Construction Cost Estimate of the required upgrades to existing infrastructure (if possible to obtain).
- Operation and Maintenance Costs
- Calculation of Equalization fees and property owner costs for Out-of-District properties including descriptions of Owners responsibilities and how charges would be implemented
- Implementation of recommended option including prioritizing SewerShed sub-areas and phasing.
- Evaluate potential financial opportunities for Village and Property Owners\*
- NYSDEC, legal and regulatory requirements\*
- Present the options and the advantages/disadvantages of the Village joining the Adjacent Sewer Districts or remaining an outside Contract.\*
- Submit the above in a comprehensive report (Phase 2). A draft (3 Copies) shall be submitted to the Village for review and comment. Meeting with the Village will be performed to review and discuss the draft report and comments. A final copy (3 Copies) of the report will then be submitted to the Village.

### \*These scope items will have been partially completed in Phase 1.

Refer to attached proposed preliminary table of contents for the Feasibility Study which will be utilized as a template for each phase.

### **D&B** Engineers and Architects

### Fee:

Item	Not to Exceed Fee
Phase 1 - Sanitary Sewer Feasibility Study for a Cardinal Road Tributary Area Sewer	\$57,000
Phase 2 - Sanitary Sewer Feasibility Study for the Unsewered Areas of Flower Hill	\$175,000

See attached Schedule.

Should you have any questions regarding the above, please do not hesitate to contact this office.

Cc: Board of Commissioners (PWWPCD)

G. Difiore (PWWPCD)

J. Marturano (D&B)

### VILLAGE OF FLOWER HILL SANITARY SEWER FEASIBILITY STUDY TABLE OF CONTENTS

### **EXECUTIVE SUMMARY**

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- 1.1 Study Objective
- 1.2 Existing Wastewater Disposal Systems
- 1.3 Environmental Benefits and Need of Sanitary Sewers
- 1.4 Project Approach

### 2.0 Project Area Description

- 2.1 Site Description
  - 2.1.1 Natural Features (Wetlands, Streams, Groundwater, Topography)
  - 2.1.2 In-District and Out-of-District Boundaries
  - 2.1.3 Land Use/Zoning Overview, Lot Size/Population
  - 2.1.4 Existing Sewered Area within the Village
  - 2.1.5 Creation of Sewershed Sub-Areas
  - 2.1.6 Potential Existing Collection Systems to Accept Flow
- 2.2 Flow Estimating
  - 2.2.1 Design and Estimating Criteria
  - 2.2.2 Water Consumption Records
  - 2.2.2 Current and Future Wastewater Flow Rates for each Sewershed Area
- 3.0 Sewer System Options for Each Sewershed Sub-Area
  - 3.1 Overview
    - 3.1.1 Existing Wastewater Collection Systems and

### **D&B** Engineers and Architects

Treatment Plants and Traditional Gravity Sewer, Pump Stations and Force Mains.

- 3.1.2 Non-Traditional Sanitary Sewer Options (Low Pressure Sewer Systems)
- 3.1.3 Alternative On-Site Wastewater Disposal Systems
- 3.1.4 Package Plant Systems, Alternative Wastewater Disposal Systems and New Wastewater Treatment Technologies
- 3.2 Design Options for Each Sewershed Sub-Area
- 3.3 Recommended Option for Each Sewershed Sub-Area
- 4.0 Implementation and Phasing
  - 4.1 Implementation and Phasing of Construction
  - 4.2 Property Owner Responsibilities for Connecting
- 5.0 Cost
  - 5.1 Conceptual Construction Cost Estimates
  - 5.2 Operation and Maintenance Costs
  - 5.3 Equalization Fees and Property Owner Costs
- 6.0 Funding Opportunities and Legal/Regulatory Requirements

Appendix:

Water Consumption Data

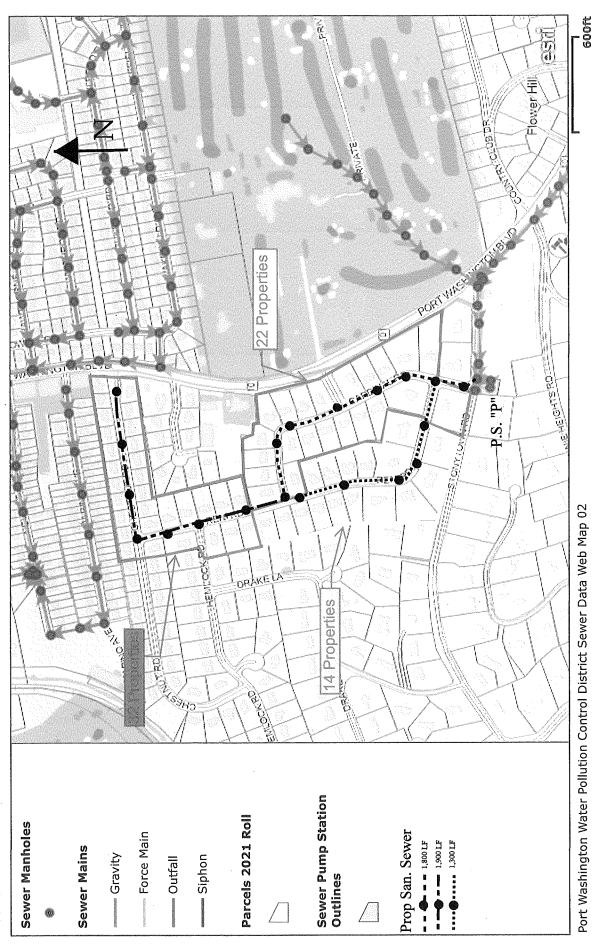
Alternate Wastewater Treatment Data

Detailed Conceptual Cost Estimate for Each Sewer shed Sub-Area

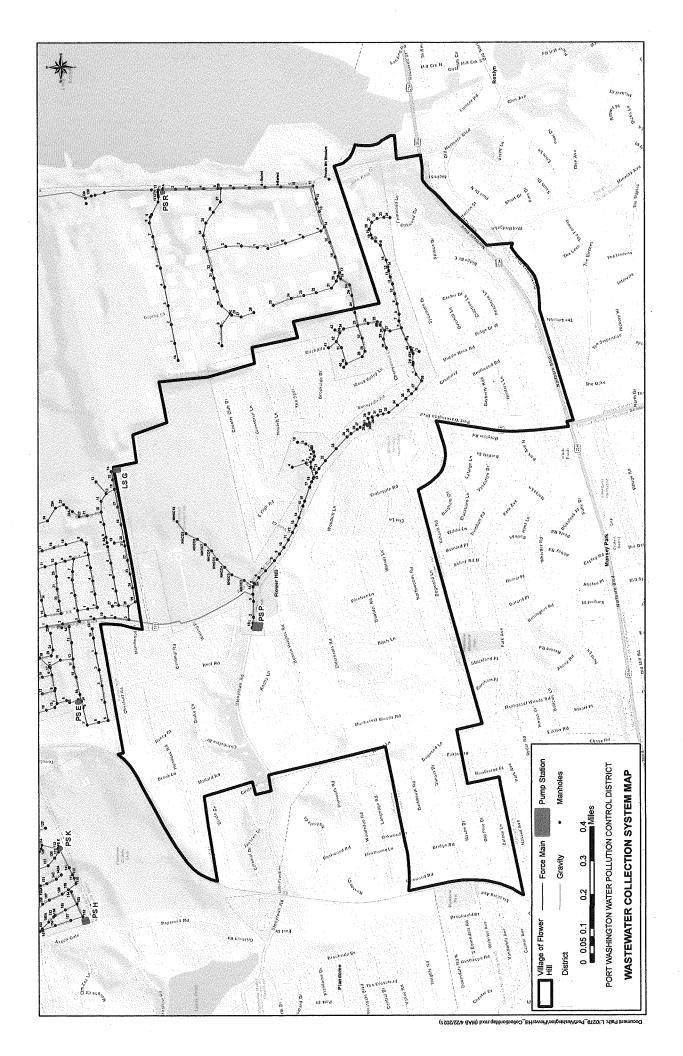
Figures:

Conceptual Sewer Plans by Sewershed Sub-Area





Incorporated Village of Flower Hill Sanitary Sewer - Cardinal Road Tributary Area







# Port Washington Water Pollution Control District

## Village of Flower Hill

## Sanitary Sewer Feasibility Study

Aug-21

Task         1         2         3         4         5         6         7         8         9         10         11         12         13         14									Month							
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Study for	Phase 1 - Sanitary Sewer Feasibility Study for															
Study for	Cardinal Road Tributary Area															
Study for	Notice to Proceed															
Study for Study	Collection of Data		$\Big $													
Study for	Evaluation of Data															
Study for	Development of Report	:				V		111								
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	Phase 2 - Sanitary Sewer Feasibility Study for								,					<u> </u>		
Pport	the Unsewered Areas of Flower Hill															
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	Development of Report										9		Ω	$\bigcirc$	LL.	
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### Preliminary Schedule

Kick -off Meeting

Meetings with Municipalities

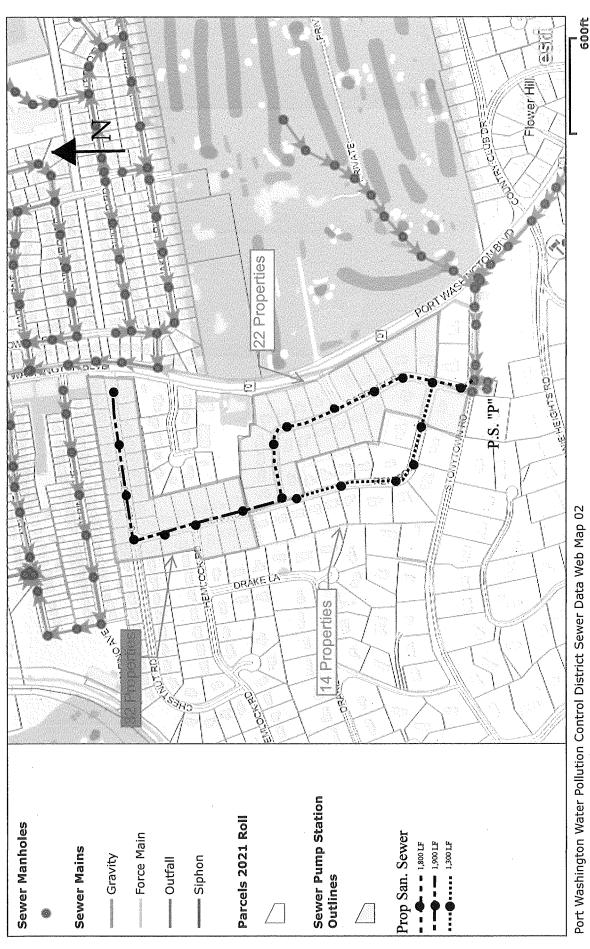
Meeting With Village/Port Washington WPCD

Draft Report

Final Report







Incorporated Village of Flower Hill Sanitary Sewer - Cardinal Road Tributary Area

None	٠.											FLOWER
issued	permit	when	due	total	fee,	permit	60%	Rev:	Plan			BAXTER ESTATES
\$400												MUNSEY PARK
\$50												PLANDOME
						\$1000 Dep	\$250 <b>+</b>					PLANDOME MANOR
\$100	other	\$400,	Minor	\$850,	Maj	\$1500,	New					ROSLYN ESTATES
dep	\$1K	\$500+	Rev	plan	Site							ROSLYN HARBOR
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	<\$2,50	0 \$150,	>\$2,50	\$250,	8	>\$10,0	\$500,	maj alt	\$2000,	new		EAST
\$5000 dep	max +	\$250. \$1500	landscape	structure &	\$500, Accsy	add.alt	\$1000,	New constr				KINGS POINT

Early in 1931, the residents tried to petition for incorporation as a village.

The Flower Hill residents wished to incorporate as soon as possible. Two concerns spurred them on. The first was a rumor that Port Washington was going to become a city in which case Flower Hill with its estates and large farms would be heavily taxed. The other was a change was in the future requirement that any new village would need 500 residents not the 250 that were presently needed.

This petition, requesting incorporation, showed the Town of North Hempstead in the address column. The Port Washington Chamber of Commerce sued the petitioners stating that only the landowners should have signed, and not also their wives thus declared insufficient signatures. Shortly after this lawsuit, there was a determination from the Supreme Court that legal residents may sign and vote. The second petition later that year listed just the street of each resident. However, most of the proposed village from Stonytown Road on the north to the border of Munsey Park had a Roslyn address. The only part of the village that was listed as Manhasset was the area to the west near the bridge and the Dench Estate. St. Francis Hospital's land kept the Roslyn address but the 500 acres given by Carlos Munson were divided into Manhasset and Port Washington in about 1940.

Sources: Minutes and Tax records of the Village of Flower Hill.

Winsche, Richard A. The History of Nassau County Community Place-Names